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**ATTACHMENT B-1**

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**PHOTOGRAPHS OF THE EDS AND CSU EXTERIOR**



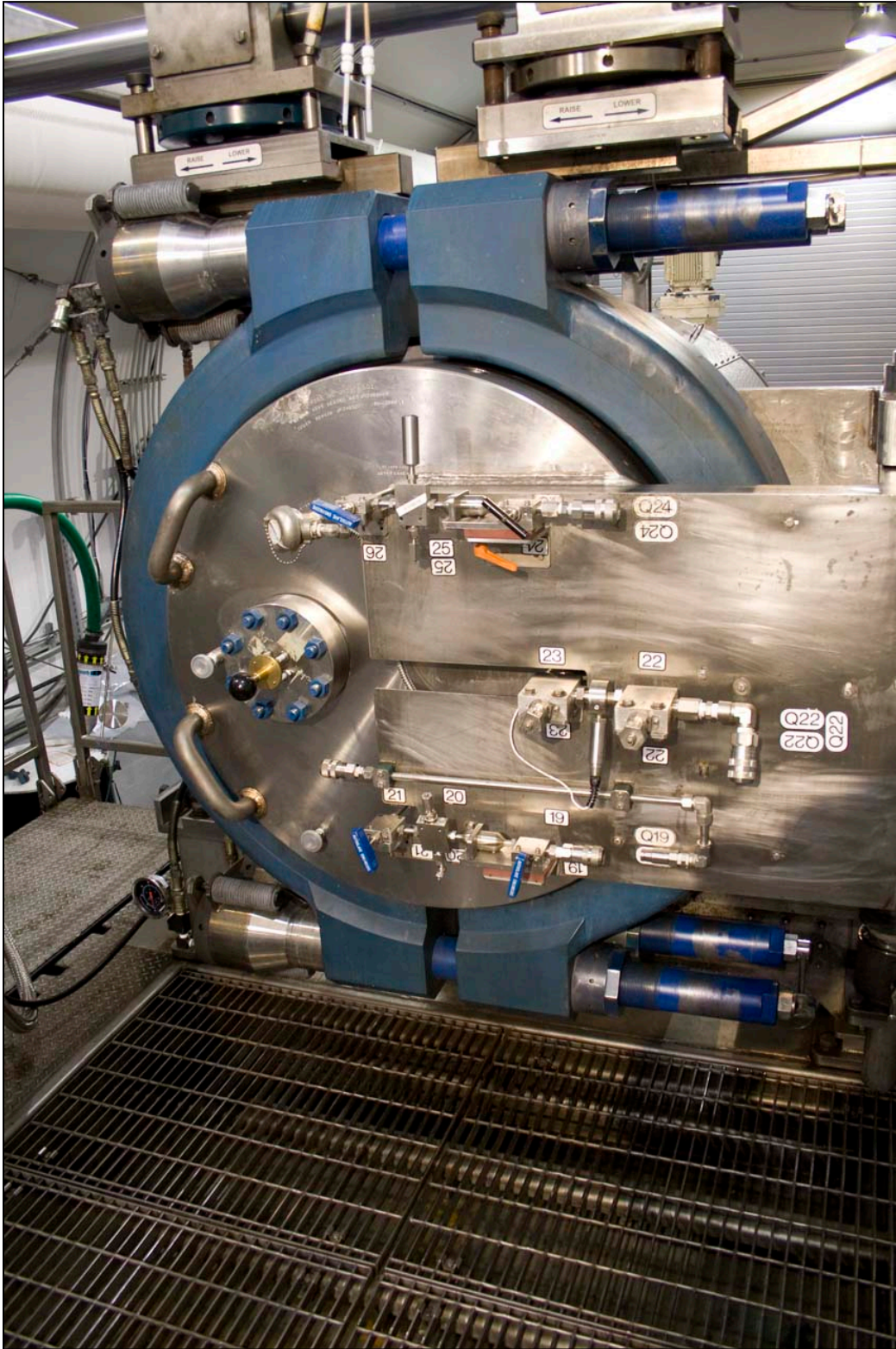


EDS Front View



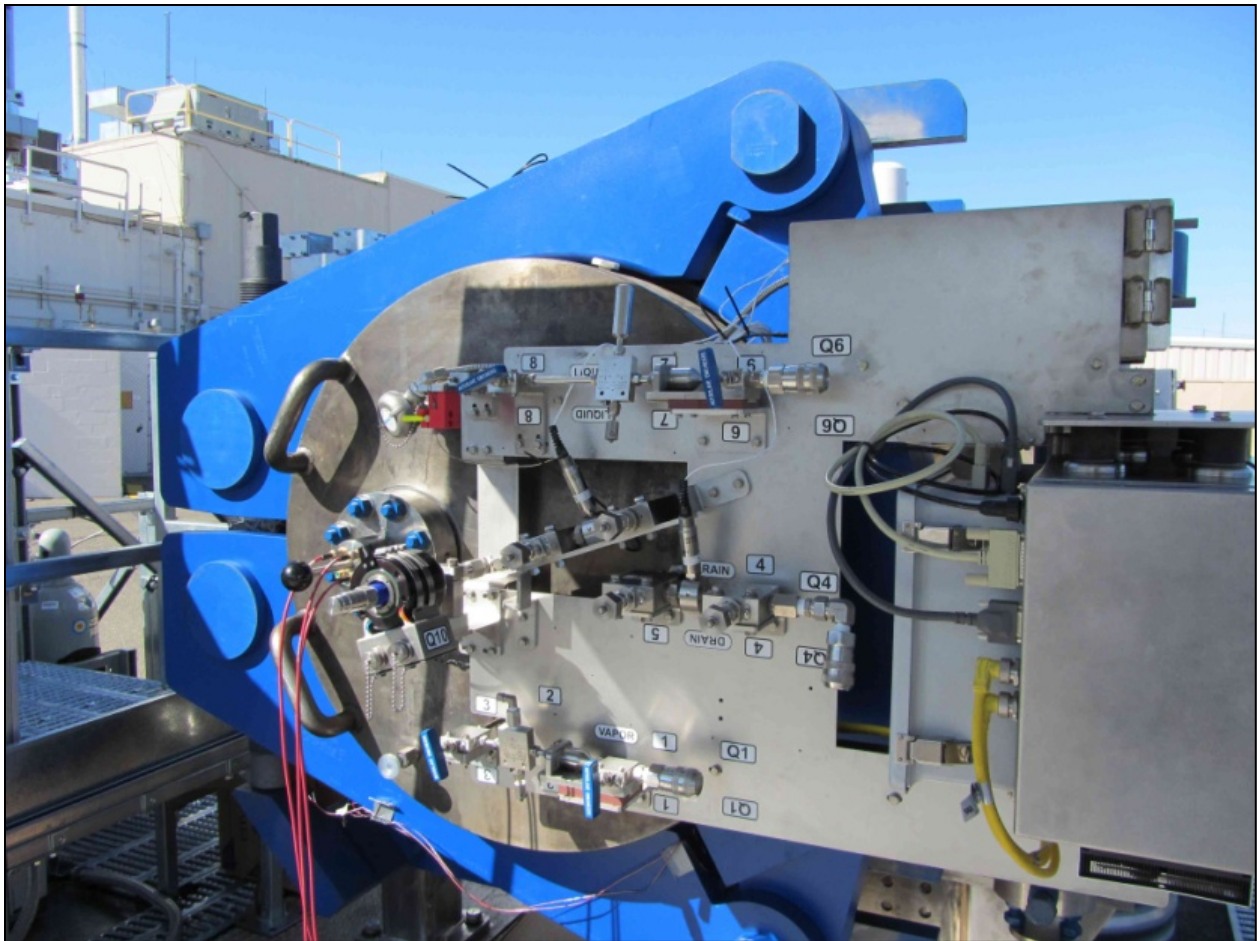
EDS Back View

Figure Attachment B-1-1. EDS Front and Back Views



1 Figure Attachment B-1-2. EDS P2R Containment Vessel with Two-Piece EDS Clamp





1 Figure Attachment B-1-3. EDS P2A Containment Vessel with Three-Piece EDS Clamp



**SECTION B**  
**FACILITY DESCRIPTION**

**B-1 GENERAL DESCRIPTION [6 CCR 1007-3 § 100.41(a)(1)]**

The Pueblo Chemical Agent-Destruction Pilot Plant (PCAPP) Explosive Destruction System (EDS) site will be located at Pueblo Chemical Depot (PCD) (**Figure B-1-1**)<sup>1</sup> in Pueblo County, Colorado, in the southeastern region of Colorado. Refer to Section B of the PCD RCRA Permit Renewal Application for the general description of PCD.

**B-1a Joint Project Manager Elimination (Provisional) (JPM E (P))**

JPM E (P) is tasked with augmenting planned destruction of the PCD chemical weapon stockpile by providing and operating the PCAPP EDS. The EDS units will be deployed to treat/destroy overpacked munitions, Department of Transportation (DOT) cylinders, and other miscellaneous items (ignition cartridges, propellant) currently stored at PCD that contain mustard agents (distilled sulfur mustard [HD]/mustard-T mixture [HT]), as well as to treat/destroy any reject chemical agent munitions or contaminated bursters generated from PCAPP operations.

A Container Storage Unit (CSU) (H1102) located within the PCAPP EDS fence line will be used to store items pending treatment in an EDS unit.

The EDS units will be deployed to support the overall goals of (1) completing the destruction of the PCD inventory of chemical agent munitions in compliance with the Chemical Weapons Convention (CWC) and Public Law, (2) maintaining the continuity of U.S. chemical destruction operations, and (3) conducting the treatment/destruction activities in a safe, environmentally acceptable, and cost-effective manner.

This permit modification request to the PCD Hazardous Waste Permit CO-02-08-08-01 contains information for EDS hazardous waste operations and CSU container storage at PCD and addresses only the PCAPP EDS site operations. Other hazardous waste operations at PCD are governed by other applications and/or permits; however, where applicable, PCD permits and documentation are referenced herein.

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<sup>1</sup> All figures are located at the end of this section.

## **B-1b Overview of the PCAPP EDS Operations**

The PCAPP EDS site will be located in the northern portion of PCD. The EDS is a transportable system designed to safely treat/destroy munitions and other items that contain chemical agent fills with or without energetic components. Two configurations of the EDS Phase 2 Unit will be used at PCD, the EDS Phase 2R (P2R) and EDS Phase 2A (P2A). The Containment Vessels for both units perform the same function and are designed, built, and tested to the same criteria. However, there are differences in components and support equipment. These differences are described in the permit modification in Section D-11. **Figure B-1-1** shows the location of PCD. **Figure B-1-2** depicts the location of the PCAPP EDS site at PCD. **Figure B-2-3** depicts the PCAPP EDS site layout (final equipment placement may change, if needed).

### **B-1b(1) PCAPP EDS Primary Process and Support Structures**

A hazardous waste storage unit, the CSU will be located within the PCAPP EDS fence line. The CSU is an existing earth-covered concrete storage igloo comprising four walls, floor, and ceiling that will be used to store items pending treatment in an EDS unit. The items will be transferred to the CSU from the PCD Resource Conservation and Recovery Act (RCRA)-permitted storage igloos. A physical description of the CSU is provided in Section D-1.

Each EDS unit will be housed inside an Environmental Enclosure. Photographs of the EDS P2R and EDS P2A units are included in **Attachment B-1** along with an exterior view of the CSU. Detailed information about the EDS support equipment and layout of the major components of the EDS units are discussed in Section D.

### **B-1b(2) EDS Process Overview**

Two EDS units will be used to treat/destroy overpacked munitions, DOT cylinders, and other miscellaneous items that are currently stored at PCD that contain mustard agent HD/HT, as well as to treat/destroy any reject chemical agent munitions or contaminated bursters generated from the PCAPP operations. The purpose of treatment is to deactivate the explosive component (if present), reduce the toxicity of the chemical fill, and decontaminate item or munition casing fragments before offsite shipment to a permitted treatment, storage, and disposal facility (TSDF) for further treatment (as applicable) and/or ultimate disposal. A description of the EDS treatment process, as well as a process flow diagram, is provided in Section D.



**B-1c Hazardous Waste Treatment Units to be Permitted**

The hazardous waste management units addressed in this RCRA permit modification consist of storage (S01) and miscellaneous treatment units (X99). Specifically, these waste management units are:

- One CSU (container storage S01)
- Two EDS units (miscellaneous treatment X99).

Section D of this permit modification provides an engineering description of the design and operation of the hazardous waste management units to be permitted.

In addition to the hazardous waste management units to be permitted, there will be less than 90-day hazardous waste storage areas and satellite accumulation areas at the PCAPP EDS site. Less than 90-day hazardous waste storage areas will be located inside the Environmental Enclosures and one storage area outside the PCAPP EDS fence line (H1103); satellite accumulation areas will be located within the PCAPP EDS fence line at the Personnel Decontamination Stations (PDSs); Environmental Enclosures; and Mobile Analytical Platform.

In accordance with the generator standards of Colorado Department of Public Health and Environment (CDPHE) Regulation 6 CCR 1007-3 § 262.34, these waste management units will be operated and used for temporary storage of waste, pending shipment to a permitted TSDF. Because these hazardous waste management units do not require a RCRA permit for operation, they are not discussed in further detail in this permit modification.

**B-1d Hazardous Wastes Managed**

Information on the wastes that will be treated/destroyed, including munition types and fill, is provided in Section C of this permit modification.

Potential hazardous wastes generated during PCAPP EDS site operations that may require temporary storage and/or shipment to a permitted TSDF for further management include the following:

- Neutralent and rinsates
- Used decontamination solution and containment pan liquids

- Decontaminated metal parts, fragments, and universal munition storage container (UMSC) debris
- Spent carbon from the Environmental Enclosure Air Filtration System (AFS) and the CSU Igloo Containment System
- Spent prefilters and high efficiency particulate air (HEPA) filters from the Environmental Enclosure AFS
- Used personal protective equipment (PPE)
- Miscellaneous solid and liquid wastes as a result of support, maintenance, and cleanup activities
- Laboratory solid waste
- Laboratory liquid waste
- Grayloc<sup>®</sup> Seal and O-rings
- Unexploded or untreated energetics or propellant material (unlikely to occur but could be generated)
- Potentially agent-contaminated empty metal overpacks
- Potentially agent-contaminated dunnage/packing material.

Descriptions of the wastes that will be managed at the PCAPP EDS site are provided in Section C-1, Chemical and Physical Analyses.